

In the Claims:

Cancel claims 1-24 without prejudice and substitute therefor:

Sub C1

-- 25. A system for forming an optical image comprising:
generating means for generating raster elements for an optic raster;
a raster multiplying system for multiplying raster elements by multiplying
signals corresponding to the raster elements;
an image display plane on which an image is formed and displayed in the
form of two coordinate fragments;
means for optically transmitting raster element corresponding signals to
said image display plane; and
an array of controllable modulators for modulating raster element
corresponding signals in accordance with image forming fragments. --

-- 26. A system as in claim 25 wherein said raster multiplying system
comprises an array of coordinated light dividing elements to divide and direct received
light on said image display plane. --

-- 27. A system as in claim 25 further comprising a holograph generator
for producing a holographic image on said display plane. --

SUB B1 }
-- 28. A system for image recording comprising:

optic raster generating means for generating raster elements;

a raster multiplying system for sharing raster forming beams into a number of beams corresponding to the number of scanning fragments to form an image;

a recording medium on which an optic image to be recorded is projected and which is optically scanned; and

means for optically transmitting the raster forming beams to the recording medium. --

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SUB B1 }
-- 29. A system as in claim 28 further comprising means for optic

compression of generated raster elements for increasing the dot per inch resolution of scanning light beams. --

SUB C3 }
-- 30. A method for forming an optical image via forming constituent fragments of an image on an image display plane, comprising:

generating an optic raster;

multiplying the raster by subdividing raster element forming beams into components according to a number of simultaneously formed image fragments;

modulating said raster elements corresponding signals to form fragments of an image to be displayed; and

~~displaying said plurality of fragments on said image display plane.~~

Sub DA
-- 31. A method as in claim 30 wherein generated optic raster elements comprise functional elements, such as periodic functions used for image compression/decompression, and wherein the step of image forming is performance at the same time the step of decompressing the compressed data for the image. --

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-- 32. A method as in claim 30 wherein the step of forming fragments of an image to be displayed comprises forming fragments of a hologram, and further comprising generating said hologram as a holographic image on said image display plane. --

Sub FO
-- 33. A method for image forming as in claim 30 used for producing hard copy of an electronically formed holographic image, further comprising:
generating the holographic image;
projecting the formed image on a photosensitive material;
forming a hologram on the photosensitive material; and
developing the photosensitive material. --

Sub B2
-- 34. A method for recording the image via scanning a sensitive plane on which an optic image that is to be recorded is projected, comprising:

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B2

generating an optic raster;

multiplying the raster by subdividing raster elements forming beams into components according to the number of parts of said sensitive plane that are to be simultaneously scanned;

projecting said beam components on said sensitive plane; and

converting the image information received on said photosensitive plane by the projection of said beam component into a form suitable for recording. --

Sub C5

-- 35. A method as in claim 34 wherein generated optic raster elements comprise functional elements, such as periodic functions used for image compression/decompression, and wherein the procedure of image forming is performed at the same time as the procedure of compressing the data for the image. --

-- 36. A method as in claim 34 wherein generated optic raster elements are subject to additional optical compression for increasing dot per inch resolution of photosensitive plane scanning light. --

-- 37. A method for recording/forming image comprising:

scanning an image plane by light beam via successive generating optic raster elements and deflecting said elements onto image plane wherein said optic raster elements present functional elements, such as two periodic functions used for

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image compression/decompression via orthogonal transformation, and wherein the process of scanning is performed at the same time the process of image compression/decompression performed on said image plane. --

REMARKS

A new set of drawings (Figs. 1-7) is substituted, as requested in Paragraph 2 of the Official Action.

A new set of claims has been substituted to better describe the invention.

By way of explanation, the application uses the term "raster". The general meaning of the term "raster" is a picture formed by, for example, an electron beam trace on a target using a scanning process. Widely known kinds of rasters are line raster, dot raster, etc. An elementary part of the picture formed by the scanning corresponds to a raster element. For example, in a conventional dot-like raster a raster element corresponds to a pixel. A complete raster formed is the sum of such elements (pixels).

It should be noted that any method for image recording (the same holds for image forming) implies a procedure for converting an image (e.g., formed by light beams on a photo receiving plane) into proper form for recording (electric signals, change of chemical structure of receiving material, etc.). In the case of electronic image recording (converting light information into electric signals) in a conventional manner the optical image constituent parts are the pixels (elements) which are